8 Public Services and Hazard Response

Chapter 8 evaluates potential impacts on public services and hazard response from the Program implementation of all alternatives. Results of the evaluation are provided at the programmatic level. Section 8.1, Environmental Setting, presents an overview of the public services and hazard response in the Program Area, and contains state and local ordinances and regulations that are applicable to the Program. Section 8.2, Environmental Impacts and Mitigation Measures, presents the following:

> Environmental concerns and evaluation criteria: A determination of whether the Program alternatives would cause significant impacts to public services and hazard response

> Evaluation methods and assumptions

> Discussion of the impacts from the Program alternatives

> Cumulative impacts summary

> A summary of environmental impacts to public services and hazard response

8.1 Environmental Setting

8.1.1 Overview of Public Services and Hazard Response

The District operates in accordance with its Injury and Illness Prevention Program that has been updated (SMCMVCD 2015a) and its Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD) 2015b). The District provides safety training by field supervisors for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. These plans and procedures provide BMPs for minimizing the impact of small spills of hazardous materials, storage of hazardous materials, and worker safety in the field conducting surveillance, physical control, vegetation management, and pesticide/herbicide application protocols. These BMPs are listed in Table 2-8 and repeated in Section 8.2.2.2. In 2015, the District had 0 incidents requiring spills management, 3 incidents involving worker safety, and 0fire incidents. The Proposed Program would continue activities subject to these plans and BMPs in the future, similar to the existing Program.

The District has regular safety training and equipment inspection meetings and several half-day to full day trainings as well. The Emergency Response Plan is contained in part in the documentation that the District submits annually to the California Environmental Reporting System (CERS) maintained by Cal/EPA. New employees take state examinations to be certified as mosquito, invertebrate, and vertebrate vector control technicians. To take the comprehensive exams, they receive extensive training. Once they have passed the exams they are enrolled in a continuing education program to maintain their certifications (20 hours per year). Additionally, employees also receive extensive ongoing training each year from the District concerning equipment and pesticide use, protecting sensitive species and habitats, emergency and safety procedures, first aid, minimizing fire hazards, etc.

A combination of county sheriffs' departments and municipal police departments provides law enforcement services in the Program Area. Sheriffs' departments typically provide law enforcement and jail services within their respective counties.

Additionally, the California Highway Patrol is the state police force for California. They have specific jurisdiction over all California state routes, US highways, interstate highways, and freeways in the state, and over all public roads in unincorporated parts of a county.

Fire protection services in the Program Area are provided by a number of agencies, including county fire departments, city fire departments, and fire districts. A number of counties also have volunteer fire departments.

California Department of Forestry and Fire Protection (CAL FIRE) oversees the fire protection and stewardship of over 31 million acres of California's privately owned wildlands. CAL FIRE's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year. CAL FIRE also responds in other emergency situations such as medical aid, hazardous material spills, swift water rescues, search and rescue missions, civil disturbances, train wrecks, floods, earthquakes, and more. CAL FIRE provides varied emergency services in 36 of California's 58 counties via contracts with local governments.

8.1.2 Regulatory Setting

California state law and local ordinances and regulations pertaining to public services and hazard response are cited in this section. No federal regulations pertain to public services or hazard response. Regulations governing human health are discussed in Chapter 7, Human Health.

8.1.2.1 State

8.1.2.1.1 California Code of Regulations

CCR Title 3 Division 6, Pesticides and Pest Control Operations, directs the safe use and transport of pesticides within the state. The following are some of the sections of particular relevance to the Proposed Program:

> ***6670. Container Control***
>
> *Pesticides, emptied containers or parts thereof, or equipment that holds or has held a pesticide, shall not be stored, handled, emptied, disposed of, or left unattended in such a manner or at any place where they may present a hazard to persons, animals (including bees), food, feed, crops or property. The [Agricultural] commissioner may take possession of such unattended pesticides or emptied containers to abate such hazard.*
>
> ***6672. Delivery of Pesticide Containers***
>
> *(a) No person shall deliver a container that holds, or has held, a pesticide to a property unless he stores it in an enclosure or closure complying with the requirements of this Section or delivers it to a person in charge of the property or his agent, or a pest control operator or his employee. The person receiving the container shall control access to it in accordance with this Section.*
>
> *(b) Each person who controls the use of any property or premises is responsible for all containers or equipment on the property that hold, or have held, a pesticide. Unless all such containers are under his personal control so as to avoid contact by unauthorized persons, he shall:*
>
> *(1) Provide a person responsible to him to maintain such control over the containers at all times; or*
>
> *(2) Store all such containers in a locked enclosure, or in the case of liquid pesticides in a container larger than 55 gallons in capacity, the container shall have a locked closure. Either shall be adequate to prevent unauthorized persons from gaining access to any of the material.*

6682. Transportation

(a) Pesticides shall not be transported in the same compartment with persons, food or feed.

(b) Pesticide containers shall be secured to vehicles during transportation in a manner that will prevent spillage onto the vehicle or off the vehicle. Paper, cardboard, and similar containers shall be covered when necessary to protect them from moisture.

8.1.2.1.2 California Department of Forestry and Fire Protection

Public Resources Code 4201-4204 directs CAL FIRE to map fire hazards within State Responsibility Areas based on relevant factors such as fuels, terrain, and weather. These statutes were passed after significant wildland-urban interface fires occurred; consequently, these hazards are described according to their potential for causing ignitions to buildings. These zones, referred to as Fire Hazard Severity Zones (FHSZs), provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires (CAL FIRE 2007).

Additionally, the Public Resources Code, beginning with Section 4427, includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment with internal combustion engines; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire suppression equipment that must be provided on site for various types of work in fire-prone areas. These requirements would apply to Program activities within a “Very High Fire Hazard Severity Zone.”

8.1.2.2 Local

Local ordinances and regulations are usually contained within the general plans of cities and counties in the Program Area, and focus on providing adequate public services and hazard response with a reasonably brief response time throughout each agency’s service area. Municipal and county ordinances establish police and fire departments and districts, and some establish emergency preparedness councils or committees. San Mateo County Health System identifies potentially dangerous and unhealthy situations and promotes sound environmental health practices through education and the enforcement of public health statutes and regulations in San Mateo County. Protecting the health and well-being of individuals and the community in San Francisco County is the fundamental responsibility of the San Francisco County Department of Emergency Management. Similar roles are played by the Santa Cruz County Department of Emergency Services and Santa Clara County Office of Emergency Services.

8.2 Environmental Impacts and Mitigation Measures

The impacts evaluation for public services and hazard response is provided below. The evaluation analyzes the Program’s impacts relative to the impact significance criteria presented in Section 8.2.1.

8.2.1 Evaluation Concerns and Criteria

The following concerns were associated with public services and hazard response and are addressed in this section:

> Risk of spill of hazardous materials from equipment/vehicles or applications of pesticides and/or herbicides

> Risk of aerial equipment failure during applications of pesticides

> Safe storage and disposal of chemical-related materials including pesticide containers

For this evaluation, Program impacts would be considered potentially significant according to the CEQA environmental checklists for Public Services (XIV) and Hazards and Hazardous Materials (VIII), if any of the Program alternatives would:

> Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response time or other performance objectives for any of the public services:

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

> Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

> Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

> Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and, as a result, would create a significant hazard to the public or the environment; or

> Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The other criteria contained in the CEQA checklist are not listed because they are not relevant to the impact analysis in this chapter for the Proposed Program for the following reasons. Program could result in the application of certain pesticide treatments within 0.25 mile of an existing or proposed school; the potential for hazardous effects of the Program alternatives on sensitive populations are discussed in Chapter 7, *Human Health*. Public services and hazard response to impacts at or near schools would be the same as described under the first criterion listed above.

Although activities proposed under the Program alternatives could occur on or near sites included on a list of hazardous materials sites (e.g., landfills and manufacturing sites) compiled pursuant to Government Code Section 65962.5 (Cal/EPA 2013), most of these activities, with the exception of constructing new shallow ditches or minor water control features, would not involve excavation or other ground disturbance that could result in impacts related to the release of materials at these hazardous materials sites. The District consults the “Cortese List”(from CalEPA), a database of existing hazardous materials sites within its Service Area. (http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm)

One of the Program alternatives involves aerial application of chemical treatments by helicopter and could, therefore, occur partially within areas covered by airport land use plans, within 2 miles of public airports or public use airports, or within the vicinity of private airstrips. However, no construction or other activities would occur that would conflict with airport land use plans or result in a safety hazard for people residing or working in proximity to these facilities. Therefore, this criterion is not applicable to the Program and is not discussed further.

None of the Program alternatives would result in any road or lane closures or detours. The Program would not involve activities that could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, this criterion is not applicable to the Program and is not discussed further.

Under some of the Program alternatives, the District and its registered contractors would practice safe disposal of pesticide products. Properly rinsed empty containers can be safely and legally disposed of at landfills. Any unused portions of Program chemicals would be disposed of at permitted hazardous waste collection locations. Adequate landfill and hazardous waste collection capacity exists in locations throughout the Program Area. The Program would not exceed the existing capacity to safely dispose of these materials. Therefore, this criterion is not applicable to the Program and is not discussed further.

Based on public concerns and the relevant CEQA criteria above, the environmental impact topics addressed in the impact analyses are:

a. Increase Demand for Police, Fire, or Health-Care Services

b. Create a Significant Hazard to the Public or Environment

c. Expose People or Structures to Wildfire Risk

8.2.2 Evaluation Methods and Assumptions

The methodology and assumptions of this impact evaluation for the Program alternatives are provided below.

8.2.2.1 Methodology

The methodology used to prepare this public services and hazard response impact section is as follows:

> Summarized federal, state, county, and select municipal regulations, ordinances, and guidelines for general public services and hazard response issues and as they related to the Program.

> Evaluated potential hazards requiring response and potential interference with public services and hazard response at the programmatic level.

> Determined probable impacts and mitigation measures associated with the alternatives proposed in Chapter 2, Program Description.

8.2.2.2 Assumptions

For the analysis of potential impacts on public services and hazard response, no assumptions were made beyond those explained in Chapter 2, Program Description, for the Program alternatives. They include the following BMPs (see Table 2-8) that are applicable to all of the Program alternatives:

> Equip all vehicles used in wildland areas with a shovel and/or a fire extinguisher during the fire season. (BMP J1)

> Train employees on the safe use of equipment and machinery, including vehicle operation. (BMP J2)

> District will regularly review and update the existing health and safety plan to maintain compliance with all applicable standards. Employees will be required to review these materials annually. (BMP J3)

> A hazardous spill plan will be developed, maintained, made available, and staff trained on implementation and notification for petroleum-based or other chemical-based materials prior to commencement of vector treatment activities. (BMP I5)

Additional spill management BMPs for use of herbicides and pesticides under the Vegetation Management and Chemical Control Alternatives are:

> The District will provide notification to the public (24 to 48 hours in advance, if possible) and/or appropriate agency(ies) when applying pesticides or herbicides for large-scale treatments that will occur in close proximity to homes, heavily populated, high traffic, and sensitive areas. The District applies or participates in the application of herbicides in areas other than District facilities when a joint effort is most effective and/or efficient. (BMP H13)

> Exercise adequate caution to prevent spillage of pesticides during storage, transportation, mixing, or application of pesticides. Report all pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment). (BMP I1)

> Maintain a pesticide spill cleanup kit and proper protective equipment at the District's Service Yard and in each District truck used for pesticide transport. (BMP I2)

> Manage the spill site to prevent entry by unauthorized personnel. Contain and control the spill by stopping it from leaking or spreading to surrounding areas, cover dry spills with polyethylene or plastic tarpaulin, and absorb liquid spills with appropriate absorbent materials. (BMP I3)

> Properly secure the spilled material, label the bags with service container labels identifying the pesticide, and deliver them to a District/Field Supervisor for disposal. (BMP I4)

> Field-based mixing and loading operations will occur in such a manner as to minimize the risk of accidental spill or release of pesticides. (BMP I6)

Under CEQA, the term "impact" is used to mean an adverse or negative effect from a physical change in the environment compared to existing conditions.

8.2.3 Surveillance Alternative

The Surveillance Alternative involves both ground surveillance and water surveillance. Surveillance activities include field investigations, trapping, sampling, and responding to public service requests. The number and type of vehicles and equipment required for surveillance would vary, but typically, ground surveillance would require the periodic use of light trucks, such as pickup trucks and jeeps, and low ground pressure ATVs, and would take place in all land use types. Water surveillance would require the use of ATVs and, occasionally, boats and most frequently would occur in open-space areas. Most equipment would only be operated a few hours per day for varying periods of time throughout the year. Pesticide use is limited; only small amounts of chemicals are used for trapping purposes (i.e., dichlorvos-containing solid paper "fragments" that are used in mosquito collection jars). However, the potential for a fuel spill exists. For spills of fuel less than or greater than 5 gallons, the District will follow procedures contained in the District's Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD 2015b).

8.2.3.1 Increase Demand for Police, Fire, or Health-Care Services

It is unlikely that the Surveillance Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 9-1-1 dispatchers to handle calls.

> **Impact PSH-1**: Surveillance activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.3.1.1 Create a Significant Hazard to the Public or Environment

Surveillance activities, including the use of vehicles for site access and monitoring and very small amounts of pesticides or attractants in containers, would not create a significant hazard to the public or the environment. District staff would adhere to all applicable CCR requirements regarding pesticides and to trap label instructions. The District's Injury and Illness Prevention Program has been updated (SMCMVCD 2015a) and provides safety training by field supervisors for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. The SMCMVCD employee training and safety programs and the CDPH Vector Control Technician training/certification, and continuing education programs, are conducted for the safe use of equipment, machinery, or tools and the safe use and disposal of pesticides. While under training, employees are required to take comprehensive examinations and are enrolled subsequently in a continuing education

program reviewed and supervised by CDPH. District staff also are responsible for implementing the District's Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD 2015b) if needed.

Adherence to CCR requirements and District BMPs to minimize spills (BMP I1 through I6) reduces the potential for accident conditions; therefore, the Surveillance Alternative would not result in significant hazards to the public or environment.

> **Impact PSH-2:** Surveillance activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.3.1.2 Expose People or Structures to Wildfire Risk

Surveillance vehicles could be used in moderate to very high FHSZs. Ground surveillance requires the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, but does not require the use of large-scale, offroad equipment. In addition, surveillance is conducted via existing roads and access routes except when existing routes are unavailable and offroad access is required. All vehicles used in wildland areas are equipped with a shovel and/or a fire extinguisher during the fire season (BMP J1). The District's Illness and Injury Prevention Program, Spill Response Procedures, and employee manuals provide training for all employees on the safe use of equipment and machinery, including vehicle operation (BMP J2). After completing the training, employees are required to take comprehensive examinations and are enrolled in a continuing education program. Vegetation management to provide access to surveillance sites also reduces the risk of fire from equipment use. These measures will reduce fire hazards; therefore, the Surveillance Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

> **Impact PSH-3:** Surveillance activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.4 Physical Control Alternative

The Physical Control Alternative involves managing vector habitat to reduce vector production or migration and typically reduces the need for pesticides. Vector management is accomplished primarily through direct habitat management and public education. Physical control for mosquitoes consists of managing wetlands and waterbodies through maintenance, new construction, and cultural practices such as the installation and maintenance of water control facilities, sediment and debris removal, vegetation maintenance and removal, and the construction and maintenance of ditches or installation of culverts that eliminate mosquito-breeding habitat. The District can also require landowners to conduct similar maintenance activities for mosquito abatement. All such requests result in the District instructing the landowner of the need to consult with resource agencies about the potential for special-status species, protection of wetlands and sensitive habitats, and the need for any permits prior to commencement of work. Physical controls for mammal vectors include reducing food sources and reducing conditions that promote harborage.

The number and type of vehicles and equipment required for physical control would vary by activity, but typically, terrestrial activities would require the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs. Wetland and aquatic activities would require the use of ATVs and, occasionally, boats and sprayers. The potential for a fuel spill exists. For spills of fuel less than or greater than 5 gallons, the District will follow procedures contained in the District's Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD 2015b).

8.2.4.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. It is unlikely that the Physical Control Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 9-1-1 dispatchers to handle calls.

> **Impact PSH-4:** Physical control activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.4.1.2 Create a Significant Hazard to the Public or Environment

Physical control activities involve equipment use but do not include the use of pesticides and herbicides and are intended to reduce the need to use chemical control measures for mosquito and/or vector control; District BMPs include management of fuel spills. Therefore, the Physical Control Alternative would not create a significant hazard to the public or the environment.

> **Impact PSH-5:** Physical control activities do not include the use of pesticides or herbicides; therefore, these activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.4.1.3 Expose People or Structures to Wildfire Risk

Physical control requires the use of vehicles and equipment that could be used in moderate to very high FHSZs. Access to work sites requires the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs. Physical control activities are conducted via existing roads and access routes except when existing routes are unavailable and offroad access is required. Construction or maintenance of ditches, levees, or other features could also require the use of large-scale, offroad equipment. Power tools are also used for vegetation management. The District's Illness and Injury Prevention Program, Spill Response Procedures, employee manuals, California Vector Control Certification Technician program, CDPH Continuing Education Program, and ongoing in-house safety programs provide training for all employees on the safe use of equipment, tools, and machinery, including vehicle operation. While undergoing training, employees are required to take comprehensive examinations and are enrolled in a continuing education program. All vehicles are equipped with a shovel and/or a fire extinguisher during the fire season. These measures will reduce fire hazards; therefore, the Physical Control Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

> **Impact PSH-6:** Physical control activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.5 <u>Vegetation Management Alternative</u>

Vegetation management activities are conducted to reduce the value of mosquito habitat and to allow District access for inspections and treatment. The number and type of vehicles and equipment required would vary by activity, but typically, access to vegetation management areas would require the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs. Access and herbicide application at or near aquatic areas (if used in the future) would require the use of ATVs and, occasionally, boats and sprayers. For potential spills of fuel and/or herbicides less than or greater than 5 gallons, the District will follow procedures contained in the District's Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD 2015b).Vegetation management activities require the use of hand tools or other mechanical means (i.e., heavy equipment) for vegetation removal or thinning. Herbicide applications, which may be considered in the future, would be used at waste ponds and in natural habitats. Vegetation removal or

thinning primarily occurs in or adjacent to aquatic habitats to allow access to sources of mosquito production or control mosquitoes and in terrestrial habitats to control other vectors. To reduce the potential for mosquito breeding associated with water retention and infiltration structures, District staff may systematically clear weeds and other obstructing vegetation in wetlands and retention basins (or request the structures' owners to perform this task). Tools ranging from shovels and pruners to chainsaws and weed-eaters up to heavy equipment can all be used at times to clear plant matter that either prevents access to mosquito-breeding sites or that prevents good water management practices that would minimize mosquito populations and the potential for mosquito-borne disease transmission. Generally, however, District vegetation management activities rely almost entirely on hand tools. Trimmed vegetation is either removed and disposed of properly from the site or broadcast in such a way as to minimize visual degradation of the habitat. Trimming is also kept to a minimum to reduce the possibility of the invasion of exotic plant and animal species. Water control structures are also used to manage vegetation by manipulating hydroperiods.

8.2.5.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. It is unlikely that the Vegetation Management Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 9-1-1 dispatchers to handle calls.

> **Impact PSH-7:** Vegetation management activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.5.1.2 Create a Significant Hazard to the Public or Environment

The routine transport, use, or disposal of herbicides for vegetation management activities would not create a significant hazard to the public or the environment. Applicators would adhere to all applicable CCR requirements regarding pesticides to ensure safety. The District's Illness and Injury Prevention Program (SMCMVCD 2015a) provides safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. Training programs are conducted for the safe use of equipment, machinery, or tools and the safe use and disposal of pesticides and herbicides. While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program reviewed and supervised by CDPH.

The Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD 2015b) address any release of a potentially hazardous material or nontarget discharge (spill) of pesticides into the environment. All spills of herbicides or fuel would be handled according to the District's procedures for cleanup of small spills of 5 gallons or less and for larger spills as follows:

> Adequate caution shall be exercised to prevent spillage of pesticides during storage, transportation, mixing or application of pesticides. All pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment) shall be reported using the District's database application.

> A pesticide spill cleanup kit and proper protective equipment will be maintained at the Vector Control Service Yard and in each vehicle used for pesticide application or transport.

> The spill site should be managed to prevent entry by unauthorized personnel. The spill will be contained and controlled by stopping it from leaking or spreading to surrounding areas, and dry spills will be covered with polyethylene or plastic tarpaulin and liquid spills will be absorbed with appropriate absorbent materials.

> Absorb the material and place in an appropriate container for proper disposal if the release is less than 5 gallons. If spill is greater than 5 gallons, dike and dam to prevent further spread, manage the site as best and safely as possible until help arrives.

> The spilled material will be properly secured and the bags will be labeled with service container labels identifying the pesticide and delivered to a Field Supervisor for disposal.

Adherence to CCR requirements and the District's spill cleanup procedures reduce the potential for accident conditions; therefore, the Vegetation Management Alternative would not result in significant hazards to the public or environment.

> **Impact PSH-8:** Vegetation management activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.5.1.3 Expose People or Structures to Wildfire Risk

Vehicles and power tools could be used in moderate to very high FHSZs during vegetation management activities. Power tools include leaf blowers, mowers, chainsaws, and weed-eaters. Access to sites and vegetation management requires the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, and could require the use of large-scale, offroad equipment such as tractors. Access will be via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District's Injury and Illness Prevention Program, employee manuals, Continuing Education Program (CDPH), and ongoing in-house safety programs provide training for all employees on the safe use of tools, equipment, and machinery, including vehicle operation. While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program reviewed and supervised by CDPH. All vehicles are equipped with a shovel and/or a fire extinguisher during the fire season. These measures will reduce fire hazards; therefore, the Vegetation Management Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

> **Impact PSH-9:** Vegetation management activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.6 <u>Biological Control Alternative</u>

The Biological Control Alternative involves the use of pathogens and predators to reduce mosquito populations. Biological control is not used for controlling other vectors. Mosquito pathogens include bacteria and viruses specifically targeted to mosquitoes which do not pose a risk to public health. Insects, fish, birds, and bats are predators used for biological control of mosquitoes. Mosquitofish (*Gambusia affinis*) are the most commonly used biological control agent throughout the world and the primary means of control used by the District. Biological control requires the periodic use of light trucks, and occasionally, ATVs, boats, , helicopters, and sprayers. For spills of fuel less than or greater than 5 gallons, the District will follow procedures contained in the District's Hazardous Release and Pesticide Spill Response Procedures (2015b).

The use of biological control reduces the need to use pesticides, but the use of pathogens usually involves application methods similar to chemical treatment. Examples of bacteria pathogenic to mosquitoes are Bs, the several strains of Bti, and *Saccharopolyspora spinosa (*spinosad*)*. Because the potential environmental impacts of Bs or Bti application are generally similar to those of chemical pesticide applications, these materials and spinosad are evaluated under the Chemical Control

Alternative. The analysis below is focused on the use of mosquitofish in, artificial aquatic habitats such as water troughs and ornamental fish ponds.

8.2.6.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. It is unlikely that the Biological Control Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 9-1-1 dispatchers to handle calls.

> **Impact PSH-10:** Biological control activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.6.1.2 Create a Significant Hazard to the Public or Environment

Biological control activities do not include the use of pesticides and herbicides or other hazardous materials other than fuel for trucks, but currently rely on mosquitofish, and are intended to reduce the need to use chemical control measures. For spills of fuel less than or greater than 5 gallons, the District will follow procedures contained in the District's Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD 2015b). Mosquitofish are used in controlled environments to avoid their migration into habitats used by sensitive species. District policy is to limit their use to contained water sources, such as ornamental fish ponds, water troughs, water gardens, fountains, and unused swimming pools. Therefore, the Biological Control Alternative would not create a significant hazard to the public or the environment.

> **Impact PSH-11:** Biological control activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.6.1.3 Expose People or Structures to Wildfire Risk

Vehicles could be used to access areas or to release or apply mosquitofish in areas that are moderate to very high FHSZs. Access requires the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, but does not require the use of large-scale, offroad equipment. Access for biological control will be via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District’s Illness and Injury Prevention Program, employee manuals, Continuing Education Program (CDPH), and continuous in-house safety training program provide training for all employees on the safe use of equipment and machinery, including vehicle operation. While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program. All vehicles are equipped with a shovel and/or a fire extinguisher during the fire season. These measures will reduce fire hazards; therefore, the Biological Control Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

> **Impact PSH-12:** Biological control activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.7 <u>Chemical Control Alternative</u>

Chemical control is a Program tool that consists of the application of relatively nonpersistent insecticides that due to active ingredient, application rate, and/or application method are largely specific to mosquitoes and directly reduce populations of larval or adult mosquitoes and other invertebrate threats to public health (e.g., ticks, yellow jacket wasps). Chemical control is implemented when inspections reveal that mosquitoes or other vector populations are present at levels that trigger the District’s guidelines for chemical control based on the vector’s abundance, density, species composition, proximity to human settlements and recreation areas, water temperature, presence of predators and other factors. The potential for a pesticide

or fuel spill exists. For spills of material less than or greater than 5 gallons, the District will follow procedures contained in the District's Hazardous Release and Pesticide Spill Response Procedures (2015b).

The majority of chemical control tools are used for mosquito abatement and consist of larvicides and adulticides. Mosquito larvicides routinely used by the District include Bti, Bs, methoprene (e.g., Altosid), CoCoBear Oil and BVA-2. Adulticides used by the District include pyrethrins (Pyrocide® and Pyrenone 25-5®), and synthetic pyrethroids such as etofenprox (Zenivex®). The District may potentially use adulticides, such as Pyrenone Crop Spray® and Permethrin (Kontrol 4-4), and synthetic pyrethroids, including Resmethrin (Scourge®). See Tables 2-2 and 2-3.

Pyrethroid-based chemicals are typically used against ground-nesting yellow jackets and ticks, and this control measure is usually triggered by public requests. When the District treats stinging insects, staff will apply the insecticide directly within the nest in accordance with the District’s policies to avoid drift of the insecticide or harm to other organisms. Alternatively, the District may place tamper-resistant traps or bait stations (if available and appropriate in the future), selective for the target insect in the immediate environment of the vector. The potential environmental impacts of these materials is minimal due to two factors: (1) their active ingredients consist largely of pyrethrins (a photosensitive natural insecticide manufactured from a Chrysanthemum species), or allethrin and phenothrin (first generation synthetic pyrethroids with similar photosensitive, nonpersistent characteristics as pyrethrin); and (2) the mode of their application for yellow jacket population control (i.e., directly into the underground nest), which prevents drift and further reduces the potential for inadvertent exposure to these materials.

The District’s rat population control program implements the limited use of rodenticides usually in response to the identification of high rodent populations as a result of citizen complaints. The District may use two different groups of anticoagulant rodenticides, known as first-generation and second-generation rodenticides. First generation rodenticides require consecutive multiple doses or feedings over a number of days to be effective. Concentrations of active ingredient in the bait typically range from 0.005 to 0.1 percent. Second generation rodenticides are lethal after one dose and are effective against rodents that have become resistant to first generation rodenticides. Concentrations of active ingredient in the bait typically range from 0.001 to 0.005 percent, as these anticoagulant baits are far more toxic than first generation baits. A neurotoxin type of rodenticide may also be used where rapid breakdown of the active ingredient is desired in order to minimize the potential for secondary poisoning of nontarget animals.

These materials are used in controlled conditions, such as in underground sewers, to minimize the potential for nontarget species to ingest either the bait or the contaminated dead rat. The District also takes part in a control program that consists of baiting along aboveground public storm control waterways, primarily in residential and commercial areas including urban creeks and not in open space or recreational areas. All bait stations are located a safe distance above the water line, and every effort is made to take advantage of natural vegetation and other factors in order to conceal the stations from children to the greatest extent possible. They also are not placed in areas where children are known to play (i.e., outside of fenced yards). Dead rodents are picked up and disposed of if seen during inspection periods. Bait stations may also be placed in public rights-of-way and on public property.

8.2.7.1 Mosquito Ground Application

For ground larviciding, the District uses a variety of techniques and equipment to apply larvicides, including handheld sprayers, backpack sprayers, and blowers, and truck- or ATV-mounted spray rigs. The District uses conventional pickup trucks, ARGOs and other four-wheeled motorcycle-type ATVs as ground larvicide vehicles. ATV safety and handling is provided to employees before operating these machines. Ground larviciding allows applications while in close proximity to the actual treatment area, and consequently treatments occur to only those micro habitats where larvae are actually present, reducing the pesticide load on the environment compared to aerial application. However, risk of chemical exposure is also greater for the applicators during ground larviciding than during aerial larviciding.

Adulticiding is the only known effective measure of reducing an adult mosquito population in a timely manner. The most common form of adulticide application is ground adulticiding via insecticide applied at very low dosages (i.e., micron sized particles), which is referred to as the ULV (Ultra Low Volume) method. This method employs specially designed ULV equipment mounted on trucks, ATVs, or held by hand for ground applications. Cold aerosol generators, cold foggers, and ULV machines are constructed by mounting a vortex nozzle on the forced air blower of a thermal fogger. Insecticide is applied as technical material or at moderately high concentrations (as is common with the pyrethroids) which translates to very small quantities per acre. In agriculture, this rate is assumed less than 36 ounces per acre, but mosquito control ground adulticiding operations rarely exceed 2 ounces per acre. The optimum sized droplet for mosquito control with cold foggers applied at ground level has been determined to be in the range of 10 to 30 microns.

8.2.7.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. Occasional calls to the District or to emergency personnel could occur from the public in the treatment area due to concerns about the potential for impacts and need to stay indoors (or not), especially when a large-scale application is planned for an imminent and severe threat to public health. (Most calls are for information on dealing with vector problems and requests for service.) When performing large-scale chemical treatment operations, the District will issue public notifications (24 to 48 hours in advance if possible) to the public and/or appropriate agencies (see BMP H13) including local authorities (who register with the District), prior to commencement of treatment operations. However, it is unlikely that the Chemical Control Alternative would result in a substantial increase in requests for actual services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 9-1-1 dispatchers to handle calls.

> **Impact PSH-13:** Chemical control activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.7.1.2 Create a Significant Hazard to the Public or Environment

The use, transport, and disposal of the pesticides would not create a significant hazard to the public or the environment. The District uses the Chemical Control method only when other alternatives are ruled out and after certain guidelines are met that require implementing the Chemical Control Alternative (ground larviciding and adulticiding). Ground larviciding allows applications while in close proximity to the actual treatment area and, consequently, treatments occur to only those microhabitats where larvae are actually present, reducing the pesticide load on the environment. Ground adulticiding employs specialized equipment that provides targeted control and applications at small quantities per acre and ULVs, reducing potential drift and nontarget exposure.

Applicators would adhere to all applicable CCR requirements regarding pesticides to ensure safety and strictly adhere to the specific label instructions for each pesticide (see Section 2.9.1 and Appendix B). District BMPs further reduce the potential for spills and accidental releases of fuel and pesticides. The District's Illness and Injury Prevention Program provides safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. Training programs are conducted for the safe use of equipment, machinery, or tools and the safe use and disposal of pesticides. While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program.

The Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD 2015b) address any release of a potentially hazardous material or nontarget discharge (spill) of pesticides into the environment. All pesticide spills would be handled according to the District's procedures for cleanup of small spills of 5 gallons or less and for larger spills as follows:

> Adequate caution shall be exercised to prevent spillage of pesticides during storage, transportation, mixing or application of pesticides. All pesticide spills and cleanups (excepting cases where dry

materials may be returned to the container or application equipment) shall be reported using the District's database application.

> A pesticide spill cleanup kit and proper protective equipment will be maintained at the Vector Control Service Yard and in each District truck used for pesticide transport.

> The spill site should be managed to prevent entry by unauthorized personnel. The spill will be contained and controlled by stopping it from leaking or spreading to surrounding areas, and dry spills will be covered with polyethylene or plastic tarpaulin and liquid spills will be absorbed with appropriate absorbent materials.

> Absorb the material and place in an appropriate container for proper disposal if the release is less than 5 gallons. If spill is greater than 5 gallons, dike and dam to prevent further spread, manage the site as best and safely as possible until help arrives.

> The spilled material will be properly secured and the bags will be labeled with service container labels identifying the pesticide and delivered to a Field Supervisor for disposal.

> Applicators must wear at a minimum a P-95 disposable filtering face piece respirator for spill of Bs and Bti dry formulations.

Adherence to pesticide label instructions and the District's small spill cleanup procedure reduces the potential for accident conditions to affect the public or the environment; therefore, ground larviciding and adulticiding under the Chemical Control Alternative would not result in significant hazards to the public or environment. See also Sections 6.2.7 and 7.2.7.

Impact PSH-14: Chemical control ground larviciding and adulticiding activities for mosquitoes would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.7.1.3 Expose People or Structures to Wildfire Risk

Chemical control vehicles and equipment used for ground larviciding and adulticiding could be used in moderate to very high FHSZs. The District would use a variety of vehicles and equipment for access to sites and to apply ground larvicides and adulticides, including conventional pickup trucks and ATVs, blowers, and truck- or ATV-mounted spray rigs. Access to sites is via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District's Illness and Injury Prevention Program provides training for all employees on the safe use of tools, equipment, and machinery, including vehicle operation. While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program. All vehicles are equipped with a shovel and/or a fire extinguisher during the fire season. These measures will reduce fire hazards; therefore, the Chemical Control Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-15: Chemical control ground larviciding and adulticiding activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.7.2 Mosquito Aerial Application

When large areas (areas that are especially difficult to access or with barriers to larvicide treatment, such as dense and abundant aquatic vegetation) are individually or simultaneously producing mosquito larvae at densities exceeding District treatment guidelines, then the District may use helicopters (or other aircraft in the future) to apply any of the larvicides. Aerial application of larvicides is a relatively infrequent activity for the District, with each application covering approximately 400 acres or less per operation. Aerial application can be more practical for remote or inaccessible areas than ground larviciding. However, risk of drift is greater with aerial applications, especially with liquid or ULV aerial larviciding and, consequently, potential risk of nontarget exposure is greater.

The aerial larvicides, excluding granular and pellet formulations, are typically combined with water and applied as a low volume wet spray mix at 5 gallons per acre or less and sometimes at 10 gallons per acre or more depending on site conditions. Aerial application of liquid larvicides typically occurs during daylight hours and at an altitude of approximately 50 feet or less above the treatment site. Granular and pellet formulations of larvicides are applied using a large mechanical spreader with a bucket that is beneath the aircraft or pods positioned on the sides of the aircraft with spreaders (e.g., Isolair® system) that can hold several hundred pounds of granules/material.

Aerial adulticiding is often the only means available to cover a very large area quickly in case of severe mosquito outbreaks or vector-borne disease epidemics, and aerial applications may be the only reliable means of gaining effective control in some areas. Two aerial adulticiding techniques are used in California: low volume and ULV applications. Low volume (<2 gallons per acre) applications are conducted with the pesticide diluted in light petroleum oils or water and as a rather wet spray. The size of the droplets reduces drift, thus limiting swath widths, and may not be ideal under certain circumstances for impinging on mosquitoes. The technique is compatible with equipment commonly used for aerial liquid larviciding.

A common aerial adulticiding technique applies the insecticide in a technical concentrate or in a very high concentration formulation as an ULV cold fog. Lighter aircraft, including helicopters, can be used because the insecticide load is a fraction of the other techniques. If the aircraft is capable of >120 knots, fine droplets can be created by the high speed air stream impacting the flow from hydraulic nozzles. Slower aircraft and most helicopters typically use some variety of rotary atomizers to create the required droplet spectrum. ULV applications can be difficult to accurately place with any regularity. Without the visual cues, drift and settling characteristics can be difficult to assess.

The flight parameters for aerial adulticiding differ by program and technique. Some operations fly during hours of daylight. At these times, the pilots should be able to see towers and other obstructions as well as keep track of the spray plume. The aircraft can be flown at a less-than-200-foot altitude, which may make it easier to hit the target area. Other operations may be conducted in the dark of the night. The aircraft typically are flown between a 200- and 300-foot altitude. Swath widths vary from operation to operation but are normally set somewhere between 400 and 1,200 feet. Swaths are flown as close to perpendicular with the wind as is possible. A number of factors affect the spray-drift offset and settling such as wind speed, droplet size, aircraft wake turbulence, altitude, and even characteristics of the individual aircraft. Pilots rely somewhat on experience for determining this offset, and some use telltale smoke or paper markers for swath alignment.

One of the public concerns was regarding potential hazards from fuel dumping before landing, which is a procedure used to lighten an aircraft's weight in certain emergency situations. For instance, if a flight takes off at a maximum takeoff weight and then faces a situation where it must return to the departure airport (due to certain mechanical problems or a passenger medical issue), not enough time is available to consume the fuel meant for getting to the original destination, and the aircraft may be over the maximum landing weight to land back at the departure point. Fuel would be released before landing. Once released, fuel would trail behind the aircraft. Most aviation fuel is a derivative of kerosene, which evaporates rapidly in the atmosphere and rarely survives in liquid form to reach the earth's surface.

This issue does not apply to the District's use of helicopters (or fixed-wing aircraft in the future if needed). These aircraft are not equipped to dump fuel. Only very large aircraft such as 727s and 747s are equipped to dump fuel prior to an emergency landing, and these have never been in consideration for use by the District.

8.2.7.2.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. Occasional calls to the District or to emergency personnel could occur from the public in the treatment area. The District notifies the County Agricultural Department and other appropriate agencies, depending on the location of an application, such as the county sheriff's department, California Highway Patrol, local police departments, fire departments, and local airports prior to commencement of aerial operations with specific information that allows for rapid and easy processing of calls they might receive from concerned citizens.

However, it is unlikely that aerial application under the Chemical Control Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 9-1-1 dispatchers to handle calls.

> **Impact PSH-16:** Chemical control (aerial application) activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.7.2.2 Create a Significant Hazard to the Public or Environment

The use, transport, and disposal of the pesticides would not create a significant hazard to the public or the environment. The District uses the Chemical Control method only when other alternatives are ruled out after certain criteria are met that require implementing the Chemical Control Alternative. Aerial application of larvicides and adulticides is a relatively infrequent activity for the District. Applicators would adhere to all applicable CCR requirements regarding pesticides to ensure safety and strictly adhere to the specific label instructions for each pesticide (see Section 2.9.1 and Appendix B). The District's Illness and Injury Prevention Program provides safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. Training programs are conducted for the safe use of equipment, machinery or tools, and use and disposal of pesticides. After completing the training, employees are required to take a comprehensive examination and are enrolled in a continuing education program.

The Hazardous Release and Pesticide Spill Response Procedures (SMCMCVD 2015b) address any release of a potentially hazardous material or nontarget discharge (spill) of pesticides into the environment. All pesticide spills would be handled according to the District's procedures for cleanup of 5-gallon-or-less and for larger spills as follows:

- Adequate caution shall be exercised to prevent spillage of pesticides during storage, transportation, mixing or application of pesticides. All pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment) shall be reported using the District's database application.
- A pesticide spill cleanup kit and proper protective equipment will be maintained at the Vector Control Service Yard and in each vehicle used for pesticide application or transport.
- The spill site should be managed to prevent entry by unauthorized personnel. The spill will be contained and controlled by stopping it from leaking or spreading to surrounding areas, and dry spills will be covered with polyethylene or plastic tarpaulin and liquid spills will be absorbed with appropriate absorbent materials.
- Absorb the material and place in an appropriate container for proper disposal if the release is less than 5 gallons. If spill is greater than 5 gallons, dike and dam to prevent further spread, manage the site as best and safely as possible until help arrives.

> The spilled material will be properly secured and the bags will be labeled with service container labels identifying the pesticide and delivered to the Field Supervisor for disposal.

> Applicators must at a minimum wear a P-95 disposable filtering face piece respirator for spill of Bs and Bti dry formulations.

Adherence to pesticide label instructions and the District's spill cleanup procedure reduces the potential for accident conditions to affect the public or the environment; therefore, the Chemical Control Alternative would not result in significant hazards to the public or environment.

> **Impact PSH-17:** Chemical control (aerial application) activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.7.2.3 Expose People or Structures to Wildfire Risk

Helicopters or other aircraft could be used in moderate to very high FHSZs for aerial application similar to existing conditions. However, continued flight operations would not pose increased fire risk in those zones, and the Program would not substantially increase the risk of wildfire from accidents; therefore, the Chemical Control (aerial application) Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

> **Impact PSH-18:** Chemical control (aerial application) activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.7.3 Yellow Jackets, Ticks, and Rodents

8.2.7.3.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. Treatment is highly localized and broad; area wide chemical applications would not occur under the Proposed Program. It is unlikely that the Chemical Control Alternative (for yellow jackets, ticks, and rodents) would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 9-1-1 dispatchers to handle calls.

> **Impact PSH-19:** Chemical control for yellow jackets, ticks, and rodents would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.7.3.2 Create a Significant Hazard to the Public or Environment

The use, transport, and disposal of the pesticides would not create a significant hazard to the public or the environment. The District uses the Chemical Control method only when other alternatives are ruled out after certain criteria are met that require implementing the Chemical Control Alternative. Applicators would adhere to all applicable CCR requirements regarding pesticides to ensure safety and strictly adhere to the specific label instructions for each pesticide (see Section 2.9.1 and Appendix B). The District's Illness and Injury Prevention Program provides safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. Training programs are conducted for the safe use of equipment, machinery, or tools and the safe use and disposal of pesticides and herbicides. While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program.

The Hazardous Release and Pesticide Spill Response Procedures (SMCMVCD 2015b) address any release of a potentially hazardous material or nontarget discharge (spill) of pesticides into the environment. All small pesticide spills would be handled according to the District's procedures for cleanup of 5-gallon-or-less spills as follows:

> Adequate caution shall be exercised to prevent spillage of pesticides during storage, transportation, mixing or application of pesticides. All pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment) shall be reported using the District's database application.

> A pesticide spill cleanup kit and proper protective equipment will be maintained at the Vector Control Service Yard and in each vehicle used for pesticide application or transport.

> The spill site should be managed to prevent entry by unauthorized personnel. The spill will be contained and controlled by stopping it from leaking or spreading to surrounding areas, and dry spills will be covered with polyethylene or plastic tarpaulin and liquid spills will be absorbed with appropriate absorbent materials.

> Absorb the material and place in an appropriate container for proper disposal if the release is less than 5 gallons. If spill is greater than 5 gallons (i.e., fuel, from vehicles only), dike and dam to prevent further spread, manage the site as best and safely as possible until help arrives.

> The spilled material will be properly secured and the bags will be labeled with service container labels identifying the pesticide and delivered to the Field Operations Support Specialist for disposal.

> Applicators must wear at a minimum a P-95 disposable filtering face piece respirator for spill of dry formulations.

Consistent with existing conditions, the District's adherence to pesticide label instructions and the spill cleanup procedure reduces the potential for accident conditions to the public or the environment; therefore, the Chemical Control Alternative would not result in significant hazards to the public or environment.

> **Impact PSH-20:** Chemical control of yellow jackets, ticks, and rodents would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.7.3.3 Expose People or Structures to Wildfire Risk

Vehicles could be used in moderate to very high FHSZs similar to existing conditions. Access to application sites could require the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, but does not require the use of large-scale, offroad equipment. Access is via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District's Illness and Injury Prevention Program provides training for all employees on the safe use of tools, equipment, and machinery, including vehicle operation (SMCMVCD 2015a). While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program. All vehicles are equipped with a shovel and/or a fire extinguisher during the fire season. These measures will reduce fire hazards; therefore, the Chemical Control Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

> **Impact PSH-21:** Chemical control of yellow jackets, ticks, and rodents would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.8 Other Nonchemical Control/Trapping Alternative

The Other Nonchemical Control/Trapping Alternative includes the use of tamper-resistant or baited traps to trap rodents, and on a limited basis, that pose a threat to public health and welfare. Trapping is also used for the removal of nuisance wildlife such as skunks, raccoons, opossums when these animals pose a threat to public health and safety. However, the potential for a fuel spill exists. For spills of fuel less than or greater than 5 gallons, the District will follow procedures contained in the District's Hazardous Release and Pesticide Spill Response Procedures (2015b).

8.2.8.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. It is unlikely that the Other Nonchemical Control/Trapping Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 9-1-1 dispatchers to handle calls.

> **Impact PSH-22:** Other Nonchemical Control/Trapping Alternative activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.8.1.2 Create a Significant Hazard to the Public or Environment

Other Nonchemical Control/Trapping Alternative activities do not include the use or transport of pesticides that could spill or leak into the environment. For spills of fuel less than or greater than 5 gallons, the District will follow procedures contained in the District's Hazardous Release and Pesticide Spill Response Procedures (2015b). Therefore, this alternative would not create a significant hazard to the public or the environment.

> **Impact PSH-23:** The Other Nonchemical Control/Trapping Alternative would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.8.1.3 Expose People or Structures to Wildfire Risk

Other Nonchemical Control/Trapping Alternative activities could require operating vehicles in moderate to very high FHSZs. Access to sites could require the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, but would not require the use of large-scale, offroad equipment. In addition, access would be via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District’s Illness and Injury Prevention Program provides training for all employees on the safe use of equipment, and machinery, including vehicle operation. While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program. All vehicles are equipped with a shovel and/or a fire extinguisher during the fire season. These measures will reduce fire hazards; therefore, the Other Nonchemical Control/Trapping Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

> **Impact PSH-24:** The Other Nonchemical Control/Trapping Alternative would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.9 Cumulative Impacts

The District's Program would not incrementally increase demand for police, fire, or health-care services, nor would it create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, or through the operation of aircraft. In addition, the Program would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. In short, the Program does not have incremental impacts on public services, and **implementation of any of the Program alternatives (individually or in combination) would not result in a significant contribution to any cumulative public services and hazard response impacts** that could result from other projects in the vicinity of the treatment areas.

8.2.10 Environmental Impacts Summary

Table 8-1 is a summary of all of the potential public services and hazard response impacts associated with the Program alternatives that would be combined into the Proposed Program. The number of each statement correlates to its number in the text, and the significance determination symbols are provided at the end. All of the impact determinations are "no impact"; therefore, no mitigation is required.

Table 8-1 Summary of Public Services and Hazard Response Impacts by Alternative

Impact Statement	Surveillance	Physical Control	Vegetation Management	Biological Control	Chemical Control	Other Nonchemical/ Trapping
Effects on Public Services and Hazard Response						
Impact PSH-1: Surveillance activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.	N	na	na	na	na	na
Impact PSH-2: Surveillance activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.	N	na	na	na	na	na
Impact PSH-3: Surveillance activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.	N	na	na	na	na	na
Impact PSH-4: Physical control activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.	na	N	na	na	na	na
Impact PSH-5: Physical control activities do not include the use of pesticides or herbicides; therefore, these activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.	na	N	na	na	na	na
Impact PSH-6: Physical control activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.	na	N	na	na	na	na
Impact PSH-7: Vegetation management activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.	na	na	N	na	na	na

Table 8-1 Summary of Public Services and Hazard Response Impacts by Alternative

Impact Statement	Surveillance	Physical Control	Vegetation Management	Biological Control	Chemical Control	Other Nonchemical/ Trapping
Impact PSH-8: Vegetation management activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.	na	na	N	na	na	na
Impact PSH-9: Vegetation management activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.	na	na	N	na	na	na
Impact PSH-10: Biological control activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.	na	na	na	N	na	na
Impact PSH-11: Biological control activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.	na	na	na	N	na	na
Impact PSH-12: Biological control activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.	na	na	na	N	na	na
Impact PSH-13: Chemical control activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.	na	na	na	na	N	na

Table 8-1 Summary of Public Services and Hazard Response Impacts by Alternative

Impact Statement	Surveillance	Physical Control	Vegetation Management	Biological Control	Chemical Control	Other Nonchemical/ Trapping
Impact PSH-14: Chemical control ground larviciding and adulticiding activities for mosquitoes would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.	na	na	na	na	N	na
Impact PSH-15: Chemical control ground larviciding and adulticiding activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.	na	na	na	na	N	na
Impact PSH-16: Chemical control (aerial application) activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.	na	na	na	na	N	na
Impact PSH-17: Chemical control (aerial application) activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.	na	na	na	na	N	na
Impact PSH-18: Chemical control (aerial application) activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.	na	na	na	na	N	na
Impact PSH-19: Chemical control for yellow jackets, ticks, and rodents would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.	na	na	na	na	N	na

Table 8-1 Summary of Public Services and Hazard Response Impacts by Alternative

Impact Statement	Surveillance	Physical Control	Vegetation Management	Biological Control	Chemical Control	Other Nonchemical/ Trapping
Impact PSH-20: Chemical control of yellow jackets, ticks, and rodents would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.	na	na	na	na	N	na
Impact PSH-21: Chemical control of yellow jackets, ticks, and rodents would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.	na	na	na	na	N	na
Impact PSH-22: Other Nonchemical Control/Trapping Alternative activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.	na	na	na	na	na	N
Impact PSH-23: The Other Nonchemical Control/Trapping Alternative would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.	na	na	na	na	na	N
Impact PSH-24: The Other Nonchemical Control/Trapping Alternative would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.	na	na	na	na	na	N

LS = Less-than-significant impact
N = No impact
na = Not applicable
SM = Potentially significant but mitigable impact
SU = Significant and unavoidable impact

8.2.11 Mitigation and Monitoring

No impacts would occur as a result of any of the Program alternatives, and no mitigation is required for ensuring an adequate public services and hazard response. Therefore, no monitoring of mitigation measures is needed.

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